

IN THE CLAIMS:

Claim 1 (cancelled): A device for monitoring and recording a user's activity for health or fitness purposes, comprising:

a housing adapted to be supported on a user's body;

a clock for generating electrical signals representative of time supported in the housing;

a motion sensor operative to generate electrical signals as a function of the user's motion, supported in the housing;

a first entry means adapted to generate an electrical signal on actuation by a user supported on the housing;

an electronic memory adapted to record said signals representative of the user's motion and the time of occurrence of signals representative of the user's motion and actuation of the first entry means supported on the housing; and

means for transferring the signals recorded in said memory to an external user display.

Claim 2 (cancelled): The device of claim 1 in which the motion sensor comprises an accelerometer.

Claim 3 (cancelled): The device of claim 1 further including a display of the current time.

Claim 4 (cancelled): The device of claim 1 further including sensors adapted to interact with a user's body to sense a physiological parameter.

Claim 5 (cancelled): The device of claim 4 wherein the physiological parameter comprises pulse rate.

Claim 6 (cancelled): The device of claim 4 wherein the physiological parameter comprises body temperature.

Claim 7 (cancelled): The device of claim 1 further including a second entry means adapted to generate an electrical signal on actuation by a user, whereby one of said entry means may record

the time of consumption of food and a second of said entry means may record the time of occurrence of exercise activities.

Claim 8 (cancelled): The device of claim 1, further including a strap attached to the housing for securing the housing to the user's wrist.

Claim 9 (cancelled): The device of claim 1, further including means for securing the housing to clothing worn by the user.

Claim 10 (cancelled): The device of claim 1, further including a display device, adapted to receive signals from the memory to generate a graphic display containing indicia setting forth the occurrence of activity events over a period of time.

Claim 11 (cancelled): The device of claim 10 wherein the graphic display device constitutes a personal digital assistant.

Claim 12 (cancelled): The device of claim 1 further including means for communicating signals stored in said memory to a remote computer over the Internet.

Claim 13 (cancelled): The device of claim 1 further including a barcode reader supported on the housing and electronics adapted to store signals generated by the barcode reader in said memory.

Claim 14 (cancelled): The device of claim 1 further including photosensitive means for capturing images and storing them in said memory.

Claim 15 (cancelled): A personal activity monitor, comprising:

a housing;

means for securing the housing to the body of a user;

a clock supported in the housing;

a graphical display supported on the housing;

a motion sensor supported in the housing and operative to generate electrical signals as a function of the motion of the housing;

a plurality of user entry keys, manually actuable by the user, supported on the housing, each key being adapted to generate an electrical signal upon actuation by a user;

an electronic memory adapted to record signals representative of a user's motion and the time of occurrence of signals representative of the user's motion and of manual actuation of each of the entry keys, supported on the housing; and

means for transferring the signals recorded in said memory to an external utilization device.

Claim 16 (cancelled): The persona activity monitor of claim 15 wherein each of the plurality of user entry keys is associated with a separate activity of the user.

Claim 17 (cancelled): The personal activity monitor of claim 16 wherein at least one of the user entry keys is associated with consumption of foods and another of said user entry keys is associated with exercise activities.

Claim 18 (cancelled): The personal activity monitor of claim 15 further including strap means for securing the housing to the wrist of a user; and wherein said display supported on the housing displays the current time and information relating to the signals stored in the memory.

Claim 19 (cancelled): A personal activity monitor comprising:

a housing;

straps associated with the housing for securing the housing to the wrist of a user;

a clock supported in the housing;

a motion sensor operative to generate electrical signals as a function of the motion of the housing, supported in the housing;

a plurality of entry keys on the housing manually actuable by the user to generate electrical signals;

an electronic memory adapted to record signals representative of the motion of the housing, their time of occurrence, and actuation of each of said entry keys by the operator, supported on the housing;

a graphical display supported on the housing and adapted to display the current time and signals stored in the memory;

a pulse rate sensor supported on the housing and adapted to measure the instantaneous pulse rate of the user and generate electrical signals for provision to said memory; and

means for transferring the signals recorded in said memory to an external utilization device.

Claim 20 (cancelled): The personal activity monitor of claim 19 further including a camera supported on the housing and adapted to capture digital images upon actuation by the user and means for recording said digital images in the memory along with the time of their capture.

Claim 21 (cancelled): The personal activity monitor of claim 19 further including an audio recorder and microphone supported on the housing for use by the user in recording information relating to activities and recording the same in the memory for later reproduction.

Claim 22 (cancelled): A body supported device for monitoring a user's activity and condition comprising:

a housing adapted to be supported on the body of the user;

a timer disposed in the housing for generating a signal representative of time;

an activity level sensor disposed in the housing for operatively sensing an activity level of the user, and generating a signal representative of the activity level of the user;

an activity entry means supported on the housing for generating a signal by the user;

a processor within said housing that uses said user activity level signal representative of the activity level of the user, said time signal and said user input signal in determining the activity level of the user for a period of time wherein the activity level for the predetermined period of time is stored in an activity log maintained in the memory; and

an external display means disposed on the housing for communicating the activity level.

Claim 23 (cancelled): The device as set forth in claim 22 further comprising a food consumption entry means for generating a signal indicating food consumption by the user, for a food log maintained in the memory.

Claim 24 (cancelled): The device as set forth in claim 22 further comprising a communication link for communicating with a remotely located computing device.

Claim 25 (cancelled): The device of claim 24 wherein the remote computing device is a personal digital assistant.

Claim 26 (cancelled): The device as set forth in claim 24 wherein said communications link is a wireless communication means.

Claim 27 (cancelled): The device as set forth in claim 22 wherein said activity entry means is used by the user to indicate a start or an end of the activity by the user.

Claim 28 (cancelled): The device as set forth in claim 22 wherein said device is supported on the wrist of the user.

Claim 29 (currently amended): A body supported device for monitoring a user's activity and condition comprising:

a housing adapted to be supported on the body of the user;

a timer disposed in the housing for generating a signal representative of time;

an activity level sensor disposed in the housing for operatively sensing an activity level of the user, and generating a signal representative of the activity level of the user;

an activity entry means supported on the housing for generating a signal by the user;

a processor within said housing that uses said user activity level signal representative of the activity level of the user, said time signal and said user input signal in determining the activity level of the user for a period of time wherein the activity level for the predetermined period of time is stored in an activity log maintained in the memory;

an external display means disposed on the housing for communicating the activity level; and

[The device as set forth in claim 22 further comprising] a voice sensing means for recording a voice signal to the processor for use in determining the activity level of the user.

Claim 30 (cancelled): The device as set forth in claim 22 further comprising a physiological sensing means disposed on the housing for sensing a physiological parameter for use in determining the activity level of the user;

Claim 31 (cancelled): The device as set forth in claim 30 wherein the physiological parameter is pulse rate.

Claim 32 (cancelled): The device as set forth in claim 30 wherein the physiological parameter is body temperature.

Claim 33 (cancelled): The device as set forth in claim 22 further comprising an imaging means supported on the housing for capturing a digital image upon actuation by the user and for recording said digital image in the memory.

Claim 34 (previously added): A method of health management using the activity level of a user, said method comprising the steps of:

measuring a resting metabolic rate of the user using a metabolic rate-sensing device;

using an activity monitor to monitor an activity level of the user while the user is engaged in the activity;

determining an activity metabolic rate of the user while engaged in the activity, using the metabolic rate-sensing device;

correlating the resting metabolic rate of the user with the activity metabolic rate of the user to determine a metabolic rate correlation factor; and

using the metabolic rate correlation factor and sensed activity level in determining an activity caloric expenditure of the user when engaged in the activity.

Claim 35 (previously added): The method as set forth in claim 34 further including the step of recognizing a pattern in the activity level signal to identify the activity and correlate the activity with the activity caloric expenditure of the user.

Claim 36 (previously added): The method as set forth in claim 34 further including the step of sensing a start or an end of an activity using an activity sensing means.

Claim 37 (previously added): The method as set forth in claim 34, wherein the resting metabolic rate and activity metabolic rate is measured using an indirect calorimeter.

Claim 38 (previously added): The method as set forth in claim 34 further including the step of using the metabolic rate correlation factor when the user subsequently engages in the activity.

Claim 39 (previously added): The method as set forth in claim 34 further including the step of using the activity energy expenditure and a resting energy expenditure in determining a total energy expenditure for the user.

Claim 40 (previously added): The method as set forth in claim 34, wherein the activity monitor includes a housing adapted to be supported on the body of the user, an external display means disposing the housing, a timer disposed in the housing, an activity level sensor disposed in the housing for operatively sensing the activity level, an activity entry means supported on the housing, and a processor within the housing.

Claim 41 (previously added): A method of health management using the activity level of a user, said method comprising the steps of:

measuring a resting metabolic rate of the user using an indirect calorimeter;

using an activity monitor to monitor an activity level of the user while the user is engaged in the activity, wherein the activity monitor includes a housing adapted to be supported on the body of the user, an external display means disposed the housing, a timer disposed in the housing, an activity level sensor disposed in the housing for operatively sensing the activity level, an activity entry means supported on the housing, and a processor within the housing;